

## ABSTRACT OF THE DISCLOSURE

In a method for controlling operation of a compressor, the compressor is shut off by a control device in order to prevent thermal damages when an estimated temperature value  $T_s$  calculated by said control device exceeds an upper threshold value  $T_{\max}$  while the compressor remains on or is allowed to be turned on when there is a need for compression and a lower threshold value  $T_{\min}$  is not reached. In order to be able to more accurately estimate the estimated temperature and increase the thermal availability of the compressor, the estimated temperature value  $T_s$  is indirectly and cyclically determined by means of a mathematical-physical model that characterizes the cooling and heating properties of the compressor.